08321-110PC2 SEQLIST.txt

SEQUENCE LISTING

<110> Thomas Jefferson University

<120> RECOMBINANT ANTIBODIES AND COMPOSITIONS
AND METHODS FOR MAKING AND USING THE SAME

<130> 08321-110PC2

<150> US 10/461,148
<151> 2003-06-13

<160> 24

<170> FastSEQ for Windows Version 4.0

<210> 1
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Ser Asn Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
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Glu Trp Val Ser Ala Ile Ser Ala Ser Gly His Ser Thr Tyr Leu Ala
65                  70                  75                  80
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
                85                  90                  95
Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
            100                 105                 110
Tyr Tyr Cys Ala Lys Asp Arg Glu Val Thr Met Ile Val Val Leu Asn
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Gly Gly Phe Asp Tyr Trp Gly Gln Gly Thr Arg Val Thr Val Ser Ser
    130                 135                 140
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
145                 150                 155                 160
Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
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Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
            180                 185                 190
Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
        195                 200                 205
Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
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225                 230                 235                 240
Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
                245                 250                 255
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
            260                 265                 270
Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
        275                 280                 285
Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
    290                 295                 300
Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
305                 310                 315                 320
Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
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Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
355 360 365
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
370 375 380
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385 390 395 400
Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
405 410 415
Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
420 425 430
Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
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<212> PRT
<213> Human

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Leu Ser Pro Gly Glu Arg Ala Thr Leu Ala Cys Arg Ala Ser Gln Thr
35 40 45
Ala Ser Arg Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
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Arg Leu Leu Ile Tyr Asp Thr Ser Asn Arg Ala Thr Gly Ile Pro Ala
65 70 75 80
Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser
85 90 95
Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Phe
100 105 110
Asn Trp Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Phe Lys Arg
115 120 125
Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140
Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160
Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175
Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190
Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
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<210> 4
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<212> PRT
<213> Human

<400> 4

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Leu | Ser | Gln | Ile | Thr | Leu | Lys | Glu | Thr | Gly | Pro | Thr | Leu | Val | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Thr | Gln | Thr | Leu | Thr | Leu | Thr | Cys | Thr | Phe | Ser | Gly | Phe | Ser | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Thr | Ser | Gly | Val | Gly | Val | Gly | Trp | Ile | Arg | Gln | Pro | Pro | Gly | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Leu | Glu | Trp | Val | Thr | Leu | Ile | Tyr | Trp | Asp | Asp | Asp | Lys | Arg | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Pro | Ser | Leu | Glu | Asn | Arg | Val | Thr | Ile | Arg | Lys | Asp | Thr | Ser | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Gln | Val | Ala | Leu | Thr | Met | Thr | Asn | Met | Asp | Pro | Leu | Asp | Thr | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Tyr | Tyr | Cys | Ala | His | Arg | Gln | His | Ile | Ser | Ser | Phe | Pro | Trp | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Ser | Trp | Gly | Gln | Gly | Thr | Leu | Val | Thr | Val | Ser | Ser | Ala | Ser | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Lys | Gly | Pro | Ser | Val | Phe | Pro | Leu | Ala | Pro | Cys | Ser | Arg | Ser | Thr | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Gly | Thr | Ala | Ala | Leu | Gly | Cys | Leu | Val | Lys | Asp | Tyr | Phe | Pro | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Pro | Val | Thr | Val | Ser | Trp | Asn | Ser | Gly | Ala | Leu | Thr | Ser | Gly | Val | His |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Phe | Pro | Ala | Val | Leu | Gln | Ser | Ser | Gly | Leu | Tyr | Ser | Leu | Ser | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Val | Thr | Val | Pro | Ser | Ser | Ser | Leu | Gly | Thr | Gln | Thr | Tyr | Thr | Cys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Val | Asn | His | Lys | Pro | Ser | Asn | Thr | Lys | Val | Asp | Lys | Arg | Val | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Lys | Thr | Pro | Leu | Gly | Asp | Thr | Thr | His | Thr | Cys | Pro | Arg | Cys | Pro |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Pro | Lys | Ser | Cys | Asp | Thr | Pro | Pro | Pro | Cys | Pro | Arg | Cys | Pro | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Lys | Ser | Cys | Asp | Thr | Pro | Pro | Pro | Cys | Pro | Arg | Cys | Pro | Glu | Pro |
| | | 275 | | | | | 280 | | | | | 285 | | | |

Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Ala Pro Glu
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305 310 315 320
Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
325 330 335
Val Ser His Glu Asp Pro Glu Val Gln Phe Lys Trp Tyr Val Asp Gly
340 345 350
Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
355 360 365
Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
370 375 380
Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
385 390 395 400
Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
405 410 415
Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
420 425 430
Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
435 440 445
Ala Val Glu Trp Glu Ser Ser Gly Gln Pro Glu Asn Asn Tyr Asn Thr
450 455 460
Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
465 470 475 480
Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Ile Phe Ser Cys
485 490 495
Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu
500 505 510
Ser Leu Ser Pro Gly Lys
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<213> Human

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35 40 45
Arg Ser Val His Trp Tyr Gln Gln Lys Ser Gly Gln Ala Pro Val Ala
50 55 60
Val Ile Tyr Asp Asn Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe
65 70 75 80

Ser Gly Ser Lys Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val
85 90 95
Glu Ala Gly Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Ile Ser
100 105 110
Ser Asp Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
115 120 125
Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
130 135 140
Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
145 150 155 160
Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys
165 170 175
Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr
180 185 190
Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
195 200 205
Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
210 215 220
Thr Val Ala Pro Thr Glu Cys Ser
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<210> 7
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<212> PRT
<213> Human

<400> 7
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Ser Val Ser Gly Ser Pro Gly Gln Ser Val Thr Ile Ser Cys Thr Gly
35 40 45
Thr Ser Ser Asp Ile Gly Gly Tyr Asn Phe Val Ser Trp Tyr Gln Gln
50 55 60
His Pro Gly Lys Ala Pro Lys Leu Met Ile Tyr Asp Ala Thr Lys Arg
65 70 75 80
Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr
85 90 95
Ala Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr
100 105 110
Tyr Cys Cys Ser Tyr Ala Gly Asp Tyr Thr Pro Gly Val Val Phe Gly
115 120 125
Gly Gly Thr Lys Leu Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser
130 135 140
Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala
145 150 155 160
Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val
165 170 175
Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr
180 185 190
Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu
195 200 205
Ser Leu Thr Pro Glu Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln
210 215 220
Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu
225 230 235 240
Cys Ser

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<212> PRT
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35 40 45
Asn Arg Tyr Thr Val Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50 55 60
Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala
65 70 75 80
Gln Arg Phe Gln Gly Arg Leu Thr Ile Thr Ala Asp Glu Ser Thr Ser
85 90 95
Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val
100 105 110
Tyr Phe Cys Ala Arg Glu Asn Leu Asp Asn Ser Gly Thr Tyr Tyr Tyr
115 120 125
Phe Ser Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val
130 135 140
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145 150 155 160
Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys
165 170 175
Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu
180 185 190
Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu
195 200 205
Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr
210 215 220
Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val
225 230 235 240
Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro
245 250 255
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
260 265 270
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

275 280 285
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
290 295 300
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
305 310 315 320
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
325 330 335
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
340 345 350
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
355 360 365
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
370 375 380
Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
385 390 395 400
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
405 410 415
Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
420 425 430
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
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Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
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<212> DNA
<213> Human

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<211> 1425
<212> DNA
<213> Human

<400> 11
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<210> 12
<211> 729
<212> DNA
<213> Human

<400> 12
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<220>
<223> Primer

<400> 13
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<210> 14
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<220>
<223> Primer

<400> 14
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<210> 15
<211> 35
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<220>
<223> Primer

<400> 15
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<220>
<223> Primer

<400> 16
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<210> 17
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<212> DNA
<213> Artificial Sequence

<220>
<223> Primer, where n is a 5' end of light chain cDNAs

<221> misc_feature
<222> (1)...(56)
<223> n = A,T,C or G

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<210> 18
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<220>
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<400> 18
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<210> 19
<211> 36
<212> DNA
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<220>
<223> Primer

<400> 19
aaagctagcc tatgaacatt ctgtaggggc cactgt 36

<210> 20
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<212> DNA
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<220>
<223> Primer

<400> 20
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<210> 21
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<400> 21
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<210> 22

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<220>
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